AN ANALYSIS ON THE EFFECTS OF DIFFERENT COGNITIVE INTERVENTION PROGRAMS ON SELECTED PSYCHOLOGICAL COMPONENTS AND PERFORMING ABILITIES OF FOOTBALL PLAYERS

SHORT SYNOPSIS

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by

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DEPARTMENT OF PHYSICAL EDUCATION PEDAGOGY

Certificate

I hereby declare that the short synopsis **"An Analysis on the Effects of Different Cognitive Intervention Programs on Selected Psychological Components and Performing Abilities of Football Players"** being submitted in partial fulfillment of the requirement for the degree of Doctor of Philosophy in Physical education under the department of Physical Education Pedagogy of Lakshmibai National Institute of Physical Education, Gwalior during the academic year 2022-23.

It is a bonafide record of original work carried out under the supervision of Dr. Anindita Das and has not been submitted in full or part to any other university or institute for a degree or diploma. Further, it is certified that the short synopsis is plagiarism-free and the proof has been submitted.

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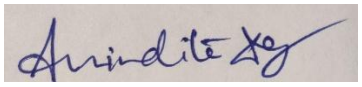

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ABSTRACT

The proposed study will aim to investigate the effects of two distinct cognitive intervention programs, namely Visual Motor Behavior Rehearsal and Autogenic Training, on selected psychological variables and skill-based performance abilities among football players. This research will be conducted on forty-five male football players aged between 18 to 25. Participants will be randomly assigned to three groups: one receiving Visual Motor Behavior Rehearsal training, another undergoing Autogenic Training, and a control group continuing with regular football practice. The interventions will be implemented over a period of twelve weeks. The study will include both pre-test and post-test assessments using scientifically validated tools to measure variables such as psychological resilience, mental toughness, athletic coping skills, perceived stress, cognitive emotional regulation, group environment, and goal orientation. Additionally, soccer-specific skills like passing, shooting, and dribbling abilities will be evaluated using the Mor-Christian Soccer Skill Test Battery.

It is expected that the results of the study will demonstrate a significant improvement in the psychological parameters and skill performance of participants who undergo Visual Motor Behavior Rehearsal and Autogenic Training when compared to the control group. Among the experimental groups, Visual Motor Behavior Rehearsal is anticipated to produce more substantial effects on enhancing psychological resilience, mental toughness, athletic coping skills, cognitive emotional regulation, group environment, goal orientation and better football skill performing abilities. Autogenic Training is also expected to yield notable improvements in perceived stress and other psychological variables. The comparative analysis of the two interventions will provide evidence on the more effective approach in enhancing both mental and skill performance outcomes in competitive football training environments.

Keywords: psychological resilience, mental toughness, athletic coping skills, cognitive emotional regulation, group environment, goal orientation, Perceived Stress

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1. INTRODUCTION

Psychology, as defined by the American Psychological Association, is the scientific study of the mind and behavior. It explores mental processes, how they function, and how they influence actions. Psychologists typically support individuals through psychotherapy by guiding them to modify behaviors and reduce symptoms. In contrast, psychiatrists, who are trained medical doctors, primarily manage mental health issues through medication and medical treatments.

Sport psychology is a specialized area within psychology that applies mental principles and techniques to enhance athletic performance, promote well-being, and address social and developmental issues within sports. Expertise in sport psychology is recognized only after earning a doctorate in a core psychology field and obtaining a license as a psychologist. This recognition does not extend to those with doctorates specifically in sport psychology if they are not licensed psychologists (Lochbaum et al., 2022).

Football, often referred to as association football or soccer, is a team-based sport involving two sides of eleven players each. It holds the distinction of being the most widely followed and played sport across the globe. The game takes place on a rectangular grass or synthetic surface, with a goal positioned at each end. The main objective is to score by directing the ball into the opposing team's goal. Players primarily use their feet to control and move the ball, while only the goalkeepers are allowed to use their hands during open play. The team that accumulates more goals by the end of the game is declared the winner. In situations where both teams score the same number of goals, the match may either end in a draw or proceed to additional time, depending on the competition rules.

Football is governed by a standardized set of regulations called the Laws of the Game. The sport is played with a spherical ball, and each team strives to outscore the other by placing the ball in the opponent's net. The final outcome depends on which side scores more goals during regulation time, though certain match formats allow for different methods to resolve tied results. Elite football players understand the value of working with a sports psychologist to strengthen their mental game. These professionals support athletes in enhancing both their weak areas and established strengths. In an environment of increasing performance pressure, leveraging psychological strategies is becoming a vital part of success for top-level players (Konter et al., 2019).

Psychological preparation plays a vital role in football, as it helps the player organize internal resources and abilities to process information, choose appropriate responses, and apply tactical thinking in alignment with the coach's game plan and strategy (Ivarsson et al., 2020). This mental preparation is structured through clearly defined goals, specific actions, appropriate methods, designated responsibilities, and regular as well as ongoing evaluation of outcomes. The purpose of this paper is to highlight the significance of psychological training in football by outlining the targeted objectives, discussing the three primary categories of psychological processes, and explaining the approaches and techniques used to implement effective mental preparation (Lochbaum et al., 2022).

In addition to foundational psychological preparation, several advanced mental training techniques and traits contribute significantly to an athlete’s overall performance. One such method is Visual Motor Behavior Rehearsal, developed by Suinn in the early 1970s, which integrates relaxation techniques, mental imagery, and execution of performance skills under simulated stress. This comprehensive approach forms a vital component of psychological skill development in athletes (Alrahamneh & Elbokai, 2011).

Another important relaxation method is Autogenic Training, originally introduced by Johannes Heinrich Schultz. It uses repeated visualizations and vocal affirmations to induce a calm state through focused awareness of bodily sensations such as warmth and heaviness. This self-directed technique is especially effective for managing stress-related physical symptoms (Blumenstein et al., 1995).

In sports psychology, a range of psychological constructs plays a critical role in athletes' ability to navigate challenges, maintain performance under pressure, and achieve long-term success. Psychological resilience is a foundational trait that enables athletes to recover from adversity and setbacks. Athletes with strong resilience are capable of adapting emotionally to challenges, effectively managing stress, and refocusing on their goals, even after facing difficult situations. Resilience helps athletes bounce back from failures or traumatic experiences and use those challenges as learning opportunities. Mental toughness, closely related to resilience, is another essential psychological attribute in sports. It refers to an athlete's ability to maintain focus, stay composed under pressure, and continue performing at their highest level, regardless of fatigue or setbacks. Mental toughness encompasses emotional regulation, confidence, and perseverance, enabling athletes to overcome obstacles and stay motivated in the face of adversity (Lochbaum et al., 2022).

In addition to resilience and mental toughness, coping skills are vital for managing stress and uncertainty in competitive environments. Coping skills represent a variety of mental and behavioral strategies that athletes use to handle external pressures, such as intense training loads, competition, or personal challenges. These skills help athletes maintain emotional stability and foster positive reactions to stress, allowing them to remain focused on performance. Perceived stress, on the other hand, refers to an athlete's subjective evaluation of the stress they experience. It reflects the athlete's perception of the demands placed on them and their ability to cope with these demands. This perception is influenced by multiple factors, including competition intensity, training schedules, and personal life stresses, and can significantly affect an athlete's mental state and physical performance (Pandian et al., 2023).

Cognitive emotional regulation is another key psychological process, which involves the mental strategies athletes use to control and manage their emotions during high-pressure situations. These strategies may include reinterpreting negative experiences in a more positive light, focusing on solutions, or suppressing disruptive thoughts. Effective emotional regulation is essential for maintaining focus, reducing anxiety, and enhancing overall performance. The group environment also plays a pivotal role in shaping an athlete's psychological experience. A positive group environment, characterized by strong communication, trust, and shared goals, fosters cohesion and a supportive atmosphere that encourages collective and individual success. In contrast, a toxic or dysfunctional team environment can hinder motivation and negatively impact performance (Josefsson et al., 2019).

Goal orientation is a crucial psychological factor that drives an athlete's behavior and commitment to their sport. Goal orientation refers to an athlete's internal drive and focus on achieving long-term objectives. Athletes with a strong goal orientation are persistent, highly focused, and committed to both personal and team achievements. Their clear sense of purpose motivates them to continually improve, even in the face of challenges. Together, these psychological constructs- resilience, mental toughness, coping skills, perceived stress, cognitive emotional regulation, group environment, and goal orientation play an integral role in helping athletes achieve peak performance and long-term success in their sporting careers (Gershgoren et al., 2011).

2. REVIEW OF RELATED LITERATURE

Literature refers to written works, and a body of literature encompasses all published writings on a specific subject. In the context of research, it includes a collection of published materials and data related to the research question. A literature review serves to examine and summarize the key aspects of existing knowledge, highlighting significant findings, theories, and methodological contributions on a given topic. The following are the relevant studies identified from various sources.

Singh & Bhowmik, 2020, studied to evaluate the effect of six weeks of Visual Motor Behavior Rehearsal on Enhancing Mental Toughness of Soccer Players. For the purpose of this study, forty (n=40) soccer players aged between 17 and 21 years from The Birchandra Singh Football Academy (TBSFA), Imphal West, Manipur, were selected. The participants were equally divided into a treatment group and a control group, with 20 players in each. Data collection was carried out using the Psychological Performance Inventory (PPI) developed by James E. Loehr in 1996, which includes 42 items. To determine the impact of the Psychological Skills Training (PST) program on selected psychological variables, a Multivariate Analysis of Variance (MANOVA) was employed, with the level of significance set at 0.05. The results indicated a significant positive effect of the PST program on the psychological attributes of the players in the treatment group when compared to those in the control group.

Choudhary, 2018, conducted a study to investigate comparative effects of autogenic and Visual Motor Behavior Rehearsal (VBMR) training on mental toughness of team games players. Thirty (30) male football and handball players aged between 18 and 24 years from Lakshmibai National Institute of Physical Education, North East Regional Centre, Guwahati, were purposively selected for the study. These participants were randomly divided into three groups, with each group comprising 10 individuals. The first experimental group, consisting of handball players, underwent Visuo-Motor Behavior Rehearsal (VMBR) training, while the second experimental group, comprising football players, received autogenic training. The control group did not participate in any additional training beyond their regular daily activities. Both experimental groups trained three times per week. Mental toughness was assessed using the Psychological Performance Inventory developed by Loehr (1986), with measurements

taken before and after an eight-week training period. Data were analyzed using descriptive statistics and analysis of covariance (ANCOVA), and the Bonferroni post hoc test was employed when significant F-values were found. The results revealed a statistically significant main effect of the training interventions on mental toughness at the 0.05 significance level ($F = 89.878$, $p = 0.00$, effect size = 0.87). This indicates notable differences in adjusted mean scores between the experimental and control groups. Post hoc comparisons showed significant differences between the VMBR and Autogenic groups (8.10), VMBR and Control groups (34.79), and Autogenic and Control groups (26.68), all at the 0.05 significance level. Overall, both the Autogenic and VMBR training groups exhibited significantly greater mental toughness than the Control group, with the VMBR group showing the highest improvement among all.

Hashim & Hanafi Ahmad Yusof, 2011, examined the effectiveness of autogenic relaxation and progressive muscle relaxation on mood of soccer players. Sixteen athletes with an average age of 14.1 ± 1.3 years participated in the study and were assigned to either autogenic relaxation or progressive muscle relaxation programs. The mood states of the soccer players were assessed one week before the relaxation training began, immediately prior to the first session, and again after completing the twelfth session. The findings indicated no significant main or interaction effects across most mood subscales. However, significant changes were observed over time in the fatigue, confusion, depression, and tension subscales. Post hoc analysis revealed that these specific mood factors showed notable reductions as a result of the relaxation training. Overall, it was concluded that both types of relaxation techniques were equally effective in improving the mood states of soccer players.

Alrahamneh & Elbokai, 2011 conducted a study for 8weeks in which there were 12-sessions, the present study reveals the effect of Visuo-motor behaviour rehearsal on athletes. A total of 63 male and female athletes from the Jordanian national disability teams, aged between 20 and 25 years, were selected for the study. The experimental group participated in Visuo-Motor Behavior Rehearsal (VMBR) training, which was administered based on their initial levels of anxiety and self-control. Following the intervention, both groups were analyzed, revealing that

the experimental group showed a significant improvement in self-concept and a notable reduction in anxiety as a result of the training.

Nelson, 2007 conducted a study to determine video and cognitive imagery training effectiveness on baseball pitchers throwing performance. Participants for this study were drawn from high school and college baseball teams in southeastern Georgia (n = 6). The primary objective was to evaluate the impact of a three-week video and cognitive imagery training program on the throwing performance of baseball pitchers. A secondary goal was to compare accuracy responses between individuals with low and high imagery abilities. Thirty pitchers were randomly selected from the top and bottom 20 percent of the group based on their scores from the Revised Movement Imagery Questionnaire, which was used to assess imagery accuracy. Initially, two athletes with low imagery ability and two with high imagery ability underwent the three-week imagery-based intervention. A control group was also formed by selecting one athlete from each group, who was then instructed to perform their best in throwing accuracy without undergoing the intervention.

3. STATEMENT OF THE PROBLEM

The purpose of the study is to determine "**The effect of VMBR and Autogenic Training on selected psychological variables and skill performing abilities of football players".**

4. OBJECTIVES OF THE STUDY

On the basis of statement of the problem under taken for study the objectives of the study will be as follows:

- To test the effect of Visual Motor Behavior Rehearsal (VMBR) training on selected psychological variables and skill performing ability of football players.
- To determine whether Visual motor behavior rehearsal training program can have significant difference in the performance of football players.

- To design effective Visual motor behavior rehearsal training program and to implement it on football players for 12 weeks.
- To test the effect of Autogenic Training on selected psychological variables and skill performing ability of football players.
- To determine whether Autogenic Training can have significant difference in the performance of football players.
- To design effective Autogenic Training program and to implement it on football players for 12 weeks.

5. DELIMITATIONS

The study will be confined to the following:

- The study will be confined to 45 male National or Inter University level football players.
- The players will be taken from LNIPE, Gwalior.
- This study will be delimited to the subject's age belonging to 18-25.
- The study will be delimited to following variables:

Independent Variable:

VMBR Training

Autogenic Training

Dependent Variable:

Soccer Skill (Mor Christian Soccer Ability) - Passing Ability, Shooting Ability, Dribbling Ability.

Psychological Resilience

Mental Toughness

Coping Skills

Perceived Stress

Cognitive Emotional Regulation

Group Environment

Goal Orientation

6. LIMITATIONS

- **Sustaining concentration:** restlessness, shortened attention span, distraction, and difficulty in understanding or remembering verbal directions.
- **Screening out environmental stimuli:** an inability to block out sounds, sights, or odors that interfere with focusing on tasks. Limited ability to tolerate noise and crowds.
- **Fear of authority figures:** difficulty approaching with researcher.
- **Severe test anxiety:** such that the individual is rendered emotionally and physically unable to take the exam.
- **Lifestyle**
- **Food habit**

7. HYPOTHESES

- H_0- There will be no significant improvement in the selected psychological variables of male inter university footballers after the 12 week VMBR training program.
- H_0- There will be no significant improvement in skill performing ability of male inter university footballers after the 12 week VMBR training program.
- H_0- There will be no significant improvement in the selected psychological variables of male inter university footballers after the 12 week Autogenic Training program.
- H_0- There will be no significant improvement in skill performing ability of male inter university footballers after the 12 week Autogenic Training program.

8. DEFINITIONS AND EXPLANATION OF THE TERM

VMBR: VMBR stands for Visual Motor Behavior Rehearsal. It is a technique used to improve performance by mentally rehearsing a task. VMBR is often used in sports, but it can also be used for other activities, such as playing a musical instrument or giving a presentation. To do VMBR, one first need to identify the task he/she want to improve. Once athlete have identified the task, he/she need to visualize to performing the task perfectly. Athlete should focus on all of the details, including the movements, thoughts, and emotions. One should also try to feel the sensations of performing the task. Once athlete have visualized himself/herself performing the task perfectly, then it need to practice the task physically. When athlete practice, he/she

should focus on making movements as smooth and efficient as possible (Singh & Bhowmik, 2020).

Autogenic Training: Autogenic training is a relaxation technique developed by German psychiatrist Johannes Heinrich Schultz and was first published in 1932. Since that time, it has been widely used in clinical practice and research to foster the mind's ability to produce relaxation in the body. Autogenic means self-generating or produced from within. This reflects the ability to self-produce a relaxed feeling of warmth and heaviness throughout the body by saying various verbal phrases aimed at encouraging a state of physical relaxation and emotional calm. It is considered a form of self-hypnosis and is used to increase relaxation and restore balance in the body. It is a technique often recommended when a health issue is present and when stress is a contributing factor to producing or maintaining health issues (Ugurlu et al., 2021).

Psychological Resilience: Psychological resilience refers to the ability of individuals to adapt and recover from adversity, stress, or challenges. It involves a dynamic process where emotional strength, coping mechanisms, and mental flexibility come into play, enabling people to navigate difficult circumstances. Resilient individuals are better equipped to maintain their well-being, manage negative emotions, and sustain a positive outlook in the face of setbacks. Psychological resilience is not a fixed trait but can be developed through experiences, supportive relationships, and personal growth, making it essential for overall mental health and successful adaptation to life's obstacles (Galli & and Gonzalez, 2015).

Mental Toughness: Mental toughness refers to the ability to stay resilient, focused, and determined in the face of challenges, pressure, and adversity. It involves maintaining emotional control, confidence, and motivation, particularly in high-stress situations. Athletes with strong mental toughness can overcome setbacks, persist through difficulties, and maintain performance despite distractions or fatigue. This psychological attribute is crucial for achieving long-term success, as it enables individuals to push their limits and consistently perform at their best, regardless of external circumstances. Mental toughness is developed through practice, discipline, and a mindset oriented toward growth and resilience (Guszkowska & Wojcik, 2022).

Coping Skill: Psychological coping skills are strategies individuals use to manage stress, emotions, and challenges in their personal or professional lives. These skills help regulate emotional responses, improve resilience, and maintain mental well-being. Common coping techniques include problem-solving, seeking social support, mindfulness, and relaxation

practices like deep breathing or meditation. Effective coping enables individuals to navigate difficult situations more constructively, reducing the impact of anxiety, depression, or frustration. Developing strong psychological coping skills is essential for maintaining emotional balance and overall psychological health, especially during high-pressure situations or life transitions (Anshel & and Anderson, 2002).

Perceived Stress: Perceived stress refers to the subjective experience of stress, shaped by an individual's perception of the demands placed upon them and their ability to cope with those demands. It reflects how much stress a person feels in response to various stressors, rather than the objective presence of these stressors. Factors like personal resilience, emotional state, social support, and coping mechanisms influence how stress is perceived. The Perceived Stress Scale (PSS) is a commonly used tool to measure this, assessing the degree to which individuals feel overwhelmed or unable to manage life's challenges. High levels of perceived stress can negatively impact physical and mental health, leading to conditions like anxiety, depression, and cardiovascular problems. Understanding perceived stress is important for developing interventions that enhance coping strategies and reduce stress-related health risks (Hamlin et al., 2019).

Cognitive Emotional Regulation: Cognitive Emotional Regulation refers to the mental strategies individuals use to manage and modulate their emotional responses to stressful or challenging situations. It involves consciously altering one's thoughts to influence emotional states, often aiming to reduce negative feelings like anger, anxiety, or sadness. These strategies can include reappraisal, where individuals reinterpret a situation to see it in a more positive light, or suppression, where they attempt to avoid thinking about or expressing their emotions. Effective cognitive emotional regulation is linked to better psychological well-being, as it allows individuals to cope with adversity in a healthier manner, improving mental resilience and emotional balance. Conversely, maladaptive strategies like rumination or catastrophizing can lead to increased stress, depression, and anxiety, making emotional regulation an essential component of mental health and well-being (Salehian & Qadiri, 2019).

Group Environment: The group environment refers to the social and psychological atmosphere within a collective, shaping how individuals interact, communicate, and collaborate. It includes factors like group cohesion, trust, shared goals, and interpersonal relationships that influence both individual and collective performance. A positive group environment fosters mutual respect, open communication, and teamwork, promoting a sense

of belonging and shared purpose. Conversely, a negative group environment can lead to conflict, reduced morale, and disengagement. In sports and education, a supportive group environment is critical for motivation, learning, and success, as it encourages individuals to contribute their best efforts toward the collective goal (Blanchard et al., 2000).

Goal Orientation: Goal orientation in sports psychology refers to an individual's approach toward achieving success, typically classified into two types: task orientation and ego orientation. Task-oriented individuals focus on personal improvement, effort, and mastering skills, viewing success as the result of hard work and self-betterment. This orientation fosters intrinsic motivation, leading athletes to persist through challenges and prioritize learning over winning. In contrast, ego-oriented individuals are driven by outperforming others and demonstrating superiority. They measure success by comparison, often seeking external validation. While ego orientation can lead to high performance when athletes succeed, it may cause stress or avoidance of challenges when failure seems likely. Both orientations shape athletes' behavior, with task orientation being linked to long-term growth and ego orientation influencing short-term competitive outcomes. A balanced approach can enhance overall development and performance in sports (Roberts & Ommundsen, 1996).

9. SIGNIFICANCE OF THE STUDY

- The results and findings of the study may help the physical education teachers and coaches to understand the concept of Visual Motor Behavioral Rehearsal.
- The results and findings of the study may help the physical education teachers and coaches to understand the importance of Visual Motor Behavioral Rehearsal.
- The study would help coaches to include the Visual Motor Behavioral Rehearsal in their training plan.
- The results and findings of the study may help the physical education teachers and coaches to understand the concept of Autogenic Training.
- The results and findings of the study may help the physical education teachers and coaches to understand the importance of Autogenic Training.
- The study would help coaches to include the Autogenic Training in their training plan.
- The study would help players to develop the ability of critical thinking and decision making.

- The study would help the players to develop their cognitive ability.
- The study would help players to identify playing errors and also how to improve it.

10. METHODOLOGY

10.1. SELECTIONS OF PARTICIPANTS

The subjects will be distributed with random assignment into 3 groups (VMBR, Autogenic Training & Control Group) of male inter university level football players, ages between 18-25. The total number of subjects will be 45, where each group will consist of 15 players.

VMBR Group	Autogenic Training Group	Control Group	Total
15	15	15	45

10.2. SELECTIONS OF VARIABLES

Independent Variable:

VMBR

Autogenic Training

Dependent Variable:

Soccer Skill (Mor Christian Soccer Ability)

Psychological Resilience

Mental Toughness

Athletic Coping Skills

Perceived Stress

Cognitive Emotional Regulation

Group Environment

Goal Orientation

10.3. CRITERION MEASURES

For soccer skill test:

Soccer is one of the popular sports in the world, as there is a very large number of people that play football at different levels. According to a survey conducted by FIFA published in 2008, over 300 million people from more than 200 countries regularly play football. As a result, we can see that effective skill tests are vitally important for placement, grading, diagnosis in various levels, since sport skill test is an instrument that elicits an observable response which provides information about motor skill used in a sport.

Mor-Christian General Soccer Ability Skill Test Battery is one of the soccer tests that evaluate passing, dribbling and shooting ability in soccer. Here, the content of the tests will be discussed and evaluated in the following part. On the contrary, there are the suggestions on improving the quality of the test that instructors not only administer the tests smoothly, but also test the subjects' ability widely.

Mor-Christian Soccer Dribbling Test: The Mor-Christian Soccer Dribbling Test assesses a player's ability to control and maneuver the ball through a predetermined zigzag course as quickly as possible. It evaluates agility, coordination, and close ball control, which are essential for effective dribbling during match play.

Mor-Christian Soccer Shooting Test: This test measures a player's shooting accuracy and power by having them attempt a series of shots at a target or goal from specific distances and angles. It is designed to evaluate the ability to strike the ball cleanly and place it effectively under varying conditions.

Mor-Christian Soccer Passing Test: The passing test evaluates a player's precision and consistency in delivering passes to designated targets over short and medium distances. It helps in assessing technical passing skills, control, and the ability to execute game-relevant passes under time constraints.

For psychological assessment:

The Nicholson McBride Resilience Questionnaire: The Nicholson McBride Resilience Questionnaire (NMRQ) consists of 12 questions. It will be designed to assess the ability of individuals to cope with stress and adversity in their lives. The Nicholson McBride Resilience

Questionnaire (NMRQ) reported alpha internal consistency coefficients of 0.80. The Nicholson McBride Resilience questionnaire is generally open to any age group, regardless of gender, ethnicity, or social background. It is designed for individuals who are currently experiencing stress, anxiety, and/or depression. It is also suitable for those who may be struggling with personal, environmental, or occupational challenges.

Sports mental toughness Questionnaire: The SMTQ (by Sheard et al.) is a 14-item instrument was established to ascertain athletes' mental toughness levels. SMTQ items were constituted by using raw data themes and quotes from qualitative studies of mental toughness those were made previously. The participants had to respond to items on a four point Likert-type scale ranging from "not at all true" [1] to "very true" [4].

Athletic Coping Skills Inventory: The ASCI (by Smith et. al.) will be used to measure the coping skills and its dimensions of team game players and performance will be recorded in numbers. The ACSI contains 28 items describing an overall coping skill score and scores for its seven sub-dimensions. Each sub-dimension scores are range from 0 to 12 and total scores from 0 to 84 whereas scores were listed on a 4 point likert scale responded by almost never, sometimes, often, and almost always.

Perceived Stress Scale: PSS (by Cohen et. al.) will be used to measure the Perceived Stress of players and data will be recorded in numbers. The PSS contains 10 items. Total scores will be listed on a 5 point likert scale responded by never, sometimes, fairly often, and very often.

Cognitive Emotional Regulation Questionnaire: The CERQ (by Nadia Garnefski & Vivian Kraaij) will be used to measure the Cognitive Emotional Regulation of players and will be recorded in numbers. The CERQ contains 36 items describing an overall Cognitive Emotional Regulation score. It is a 5 point likert scale responded by almost never, sometimes, often, and almost always.

The Group Environment Questionnaire: The GEQ (by Carron et. al.) will be used to measure team cohesion and its dimensions of Team Game Players. Group Environment Questionnaire contained 18 items describing an overall Team Cohesion score as well as scores for the four sub-dimensions. Possible scores ranged from 4 to 36 for individual attraction to group – task (ATGT) and group integration –social (GIS). Similarly scores ranged from 5 to 45 for individual attraction to group –social (ATGS) and group integration –task (GIT).

Goal Orientation [Task and Ego Orientation in Sport Questionnaire (TEOSQ)]"The Task and Ego Orientation in Sport Questionnaire (TEOSQ) (by Duda and Nicholls) to assess task and ego orientation in an athletic context. Duda and Nicholls (1989) reported alpha internal consistency coefficients of .82 (Task orientation) and .89 (Ego orientation. Nicholls and his colleagues (1989) then modified the questionnaire for a sport specific environment. (1) Task Orientation: Behaviour that is demonstrated by achieving personal mastery, and learning new skills. The demonstration of ability is based on maximum effort. (2) Ego Orientation: Behaviour that is focused on demonstrating ability by being successful with minimum effort and outperforming others.

10.4. ADMINISTRATION OF TESTS

VMBR: In 1976, Richard Suinn developed Visual Motor Behavior Rehearsal Training. In this training initially athletes clear distraction in their mind for proper calm and relaxation of brain through relaxation training, secondly visualization of correct performing skills and third imagery training. One of the most systematically described and researched version of imagery rehearsal is called Visual Motor Behavior Rehearsal,

Visual-Motor Behavior Rehearsal Training follows specific steps:

First Phase will be designed to produce relaxation through Jacohson's Progressive Muscle Relaxation Technique. Subjects will be asked to remove their shoes and sit down on the chair. The duration of the first phase will range from 5 to 10 minutes. During this phase the participants will be instructed to sit comfortably on a chair with eyes closed and keeping the legs uncrossed. Participants will be asked to do deep breathing: they will focus on theirs inhalation and exhalation through diaphragm. In deep breathing. Each phase of expiration would be mentally linked with the feeling of expelling pent-up tension and anxiety the procedure involves systematically tensing and relaxing specific muscle groups in a predetermined order. Relaxation begins with the muscles of the left arm and proceeds to those of the right arm. Left and right legs, abdomen, back, and chest and shoulders, concluding with the neck and face muscles. Participants will become more concentrated. Confident and prepare themselves for the Second Phase.

Second Phase will involve the visual presentation of specific skills with help of projector for the duration of 5 to 10 Minutes. Visual display will consist of photos and videos of elite players

and self. It will help the subjects to notice the errors or faulty movements and that will be assisted to realize how they can fulfill mastery or perfection in the performance. After the Visual Aid presentation through LSD Projector, athletes will be asked to step into Visualization; participants will recreate the mental image and see every detail through successful visualization for 5 to 10 minutes. During this phase following points will be considered for effective visualization:

a) Motivational videos of sports.
b) Technique and skill related videos/ photos with error and corrections.
c) Videos of elite players.
d) Videos of National and International matches.
e) Videos of foot movements of soccer players.

Third Phase during this phase subjects will go through Imagery technique. whatever they had seen during second phase, they will reconnect the skills with their own and try to correct the errors through imagery involving how clearly the athlete see himself performing. Athletes will try to create clear image involving all his senses with closed eyes. It will be the image which the athlete either experienced or desire by the athletes. It will sound like performing of actual skill m the field of play involving all muscles in a similar sequence executing while performing a particular skill in football. During this phase, if any athlete feels like mistakes occur, one will immediately reverse it and will try to do it correctly. Athletes for the effective and correct imagery process will be instructed to have their overall mental involvement, which will help to get proper physical sensations, sound of audience, colleagues' motivation, sights and emotions which they had experienced during actual game conditions. Formation of mental image from errors to correct: behavior will improve psychological strengths i.e. flow states, intrinsic motivation, sport confidence and concentration.

Feedback from the participants regarding the extent to which they will feel the sense of relaxation, visualization and imagery during the Visual Motor Behavior Rehearsal Training will be taken. Subjects will be asked about how much the intervention helped them in perceiving a balance between their skills and the challenges they have. They will be inquired regarding how VMBR training has contributed their interest towards their game. They will also be asked to provide feedback regarding the extent to which VMBR facilitated their concentration, confidence and perfection of movements of soccer skill Performing Competency.

Autogenic Training:

Autogenic training in sports psychology is a self-induced relaxation technique that enables athletes to manage stress, enhance focus, and improve overall mental well-being through a series of structured verbal and visual cues aimed at creating a state of calmness and physiological balance. Developed by Johannes Heinrich Schultz, this method involves passive concentration on bodily sensations such as heaviness, warmth, and regulated breathing, which helps in reducing muscle tension, lowering heart rate, and fostering emotional control. In the context of sports, autogenic training is particularly beneficial for athletes dealing with performance anxiety, high-pressure situations, and fatigue, as it cultivates mental clarity, emotional stability, and better psychophysiological regulation. By practicing autogenic training regularly, athletes can increase their resilience, maintain composure during competition, and achieve a heightened sense of internal control, which ultimately contributes to improved performance and consistent execution of skills.

10.5. COLLECTION OF DATA

Pre data of Experimental group 1, Experimental group 2 and Control group for the selected psychological variables as per the norms of respective questionnaires will be recorded, followed by soccer skill tests will be conducted for all the groups and the scores as per test norms will be recorded. For 12 weeks, **VMBR** and **Autogenic Training** will be provided to the Experimental groups, where Control group will undergo regular soccer practice and observation. After 12 weeks, Post data of all the groups will be collected and recorded for the selected Psychological variables and soccer skill tests.

10.6. RESEARCH GROUP DESIGN

EXPERIMENTAL GROUP I (VMBR Training)	**EXPERIMENTAL GROUP II (Autogenic Training)**	**CONTROL**
PRE-TEST	PRE-TEST	PRE-TEST
VMBR TRAINING	AUTOGENIC TRAINING	CONTROL
POST-TEST	POST-TEST	POST-TEST

True Experimental Pretest-Posttest Group Design

10.7. TRAINING PROCEDURE

S. No.	Weeks	Group	Days	Duration
1	1 to 2	Visual-Motor Behavior Rehearsal Training	1,3,5	up to 20 minutes
		Autogenic Training	2,4,6	
2	3 to 4	Visual-Motor Behavior Rehearsal Training	1,3,5	up to 20 minutes
		Autogenic Training	2,4,6	
3	5 to 6	Visual-Motor Behavior Rehearsal Training	1,3,5	up to 30 minutes
		Autogenic Training	2,4,6	
4	7 to 8	Visual-Motor Behavior Rehearsal Training	1,3,5	up to 30 minutes
		Autogenic Training	2,4,6	
5	9 to 10	Visual-Motor Behavior Rehearsal Training	1,3,5	up to 40 minutes
		Autogenic Training	2,4,6	
6	11 to 12	Visual-Motor Behavior Rehearsal Training	1,3,5	up to 40 minutes
		Autogenic Training	2,4,6	

10.8. STATISTICAL TECHNIQUE

The obtained data will be explained through two parts: Descriptive and analytical. For descriptive statistics mean and standard deviation will be used. To examine the effect of Visual motor behavior rehearsal training program and Autogenic Training, ANCOVA will be used to find out the significance difference. Level of Significance will be set at 0.05.

11. EXPECTED OUTCOME

It is anticipated that the findings of the present study will reveal significant enhancements in both psychological variables and football-specific skill performance among the participants who will undergo the cognitive intervention programs, namely Visual Motor Behavior Rehearsal and Autogenic Training and Autogenic Training, as compared to those in the control group who will receive only regular football training. These improvements are expected to be evident through the post-intervention assessments conducted after the twelve-week training period.

Specifically, participants in the Visual Motor Behavior Rehearsal group are expected to demonstrate considerable progress in various psychological constructs, including but not limited to psychological resilience, mental toughness, athletic coping skills, cognitive emotional regulation, and goal orientation. In addition to these mental attributes, notable advancements are also anticipated in the participants' skill performance in key football skills such as passing, dribbling, and shooting. This group is likely to benefit the most from the integrated components of relaxation, visualization, and imagery training, which are known to reinforce cognitive control and motor learning processes essential for sports performance.

Participants assigned to the Autogenic Training group are also expected to exhibit substantial improvements in psychological dimensions. These improvements may be prominent in areas related to perceived stress, emotional regulation, and general mental well-being. Through systematic self-suggestion and relaxation exercises, the Autogenic Training program is expected to enhance the athletes' ability to manage stress, maintain composure, and sustain focus during competitive situations.

Furthermore, it is anticipated that the comparative analysis between the two experimental groups will yield valuable insights into the relative effectiveness of each cognitive training method. The results will likely indicate that while both interventions will contribute to measurable positive changes, the Visual Motor Behavior Rehearsal program will have a more pronounced impact on the psychological preparedness and football skills. These findings are expected to emphasize the importance of integrating cognitive training methods into athletic development programs and may serve as a scientific basis for coaches, sports psychologists, and physical education professionals to implement tailored psychological interventions in football training environments.

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